

ABSTRACT

An intravascular stent especially suited for implanting in curved arterial portions. The stent retains longitudinal flexibility after expansion. The stent is formed of intertwined meander patterns forming triangular cells. The triangular cells are adapted to provide radial support, and also to provide longitudinal flexibility after expansion. The triangular cells provide increased coverage of a vessel wall. The stent can have different portions adapted to optimize radial support or to optimize longitudinal flexibility. Loops in the stent are disposed and adapted to cooperate so that after expansion of said stent within a curved lumen, the stent is curved and cells on the outside of the curve open in length, but narrow in width whereas cells on the inside of the curve shorten in length but thicken in width to maintain a density of stent element area which much more constant than otherwise between the inside and the outside of the curve. As a result, when the stent is coated with a medicine the more constant density of stent elements results in an even dose being applied to the inside wall of the lumen, avoiding the possibility that a toxic dose be supplied at one area while a less than effective dose is applied to another area.

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